

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/036,501 03/06/98 LOURIE

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EXAMINER

ALLAN T SPONSELLER
BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES CA 90025-1026

NGUYEN, L

ART UNIT	PAPER NUMBER
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2612

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DATE MAILED:

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. 09/036,501	Applicant(s) Lourie et al.
Examiner Luong Nguyen	Art Unit 2612



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on Jul 13, 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 15, 16, 18, 19, and 21-24 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 15, 16, 18, 19, and 21-24 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are objected to by the Examiner.

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) Notice of References Cited (PTO-892) 18) Interview Summary (PTO-413) Paper No(s). _____
- 16) Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) Notice of Informal Patent Application (PTO-152)
- 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) Other: _____

Art Unit: 2612

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 7/13/2001 have been fully considered but they are not persuasive.

In re pages 4-5, Applicants argue that neither Stedman, Ng, nor Brown teach or suggest monitoring a scene while a computer system is in a state of inactivity and causing the computer system to exit the inactive state **in response to detecting motion**, no combination of Stedman, Ng, and Brown teaches or suggests the invention as claimed in claim 15.

In response, regarding claim 15, note that this limitation is not recited in claim 15. The Applicants amended claim 15 with the claim limitation “a processor coupled to the memory to compare the weighted average of brightness of two frames to each other and to cause the computer system to exist the inactive mode in response to the weighted average of brightness of two frames differing by a predetermined amount.” The Examiner considers that claim 15 as amended still do not distinguish over Stedman patent in view of Ng patent and Brown patent. Stedman et al. disclose computer system comprises processor 12 (figure 2, column 3, lines 39-53) which causes the computer system to exit the inactive mode (controller 40 generates wakeup signal which signals system processor 12 to wake up, i.e., to transition from the system power saving mode (inactive mode) to the normal mode operation (active mode), column 4, lines 40-47).

Art Unit: 2612

Stedman et al. fail to specifically disclose a processor which cause the computer system to exit the inactive mode in response to the weighted average of brightness of the two frames differing by a predetermined amount. However, Brown discloses combination of frame recorder 4 and change detector 7 (change detector 7 compares the differences between frames) as computer system which operates in active mode when the discrepancy count value exceeds the minimum, then an alarm signal is generated on signal line 19 to activate alarm 12 or video cassette recorder 11 (figures 1-2, column 5, line 20 through column 6, line 8); and computer system operates in inactive mode when the discrepancy count value below the minimum required to generate an alarm condition, the alarm condition is removed from signal line 19 (figures 1-2, column 6, lines 15-31). Stedman et al. and Brown fail to specifically disclose the difference weighted average of brightness of the two frames differing by a predetermined amount. However, Ng teaches the difference between the current frame and the reference frame is determined on a pixel-by-pixel basis, and the pixel value indicates the luminance level or brightness level (column 6, lines 12-17, column 7, lines 10-28), a motion detection signal is generated if the difference between the current frame and the reference frame exceeds a threshold (see abstract, difference weighted average of brightness of the two frames differing by a predetermined amount). For further discussion, please see the discussion of claim 15 in the Office Action below.

In re pages 4-5, Applicants argue that Stedman does not teach or suggest causing the computer system to wake up **in response to detecting motion** by comparing two video frames. Ng does not disclose causing an apparatus to exit an inactive mode **in response to detecting**

Art Unit: 2612

motion by comparing two video frames. Brown does not disclose causing an apparatus to exit an inactive mode when a difference is detected.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In addition, this limitation is not recited in claim 15.

Claim Rejections - 35 USC § 112

2. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 (line 2 and line 3) recites the limitation "the" in "the frame property". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2612

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15-16, 18-19, 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stedman et al. (US 5,675,364) in view of Brown (US 5,455,561) further in view of Ng (5,731,832).

Regarding claim 15, Stedman et al. disclose a computer system which provides a wakeup control function, comprising memory, disclosed as memory 36 (figure 2, column 3, lines 39-53); a processor (processor 12, figure 2, column 3, lines 39-53) which causes the computer system to exit the inactive mode (controller 40 generates wakeup signal which signals system power 12 to wake up, i.e., to transition from the system power saving mode (inactive mode) to the normal mode operation (active mode), column 4, lines 40-47). Stedman et al. disclose computer system operates in active mode and enters to an inactive mode (power saving mode, column 1, lines 25-40, column 6, lines 20-30).

Stedman et al. fail to specifically disclose a memory to store a weighted average of brightness corresponding to one or more frames representing a view of different times; and a processor which causes the computer system to exit the inactive mode in response to the weighted average of brightness of the two frames differing by a predetermined amount. However, Brown discloses a video camera surveillance system comprising memory, disclosed as frame recorder 4 (figure 1, column 4, lines 34-45); processor, disclosed as change detector 7 which compares the difference signal between a frame from the series of frames subsequent to the reference frame and the reference frame, and generates an output signal line 19 if the difference is beyond a preset

Art Unit: 2612

threshold (figures 1-2, column 4 line 53 through column 5, line 25, column 7, line 67 through column 8, line 7). Brown discloses combination of frame recorder 4 and change detector 7 as computer system which operates in active mode when the discrepancy count value exceeds the minimum, then an alarm signal is generated on signal line 19 to activate alarm 12 or video cassette recorder 11 (figures 1-2, column 5, line 20 through column 6, line 8); and computer system operates in inactive mode when the discrepancy count value below the minimum required to generate an alarm condition, the alarm condition is removed from signal line 19 (figures 1-2, column 6, lines 15-31). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system in Stedman et al. by the teaching of Brown in order to provide a system which can recognizes different mode by comparing the property of two frames.

Stedman et al. and Brown fail to specifically disclose the difference weighted average of brightness of the two frames differing by a predetermined amount. However, Ng teaches the difference between the current frame and the reference frame is determined on a pixel-by-pixel basis, and the pixel value indicates the luminance level or brightness level (column 6, lines 12-17, column 7, lines 10-28), and a motion detection signal is generated if the difference between the current frame and the reference frame exceeds a threshold (see abstract, difference weighted average of brightness of the two frames differing by a predetermined amount). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system in Stedman et al. by the teaching of Brown and Ng in order to provide a system

Art Unit: 2612

capable of immediately identifying changes in an image represented by a video signal (column 1, lines 49-51).

Regarding claim 16, Stedman et al. discloses a reset circuitry coupled to the processor to power up the computer system to exit the inactive mode (column 4, lines 40-47).

Regarding claims 18 and 24, Brown discloses the processor receives frames at a first frame rate when the computer system is in the active mode and the processor receives frames at a second frame rate when the computer system is not in the inactive mode (column 5, lines 3-25, column 6, lines 63+).

Regarding claims 19 and 23, Brown discloses the processor determines the frame property when the computer system is in the inactive mode and does not determine the frame property when the computer system not in the inactive mode (column 5, lines 3-26).

Regarding claim 21, Brown discloses the processor compares frames by comparing a weighted average brightness of the consecutive frames (column 3, lines 34-44, column 4, lines 34-67).

Regarding claim 22, Stedman et al. disclose a computer system which provides a wakeup control function which causes the computer system to exit the inactive mode (controller 40 generates wakeup signal which signals system power 12 to wake up, i.e., to transition from the system power saving mode (inactive mode) to the normal mode operation (active mode), column 4, lines 40-47). Stedman et al. disclose computer system operates in active mode and enters to inactive mode (power saving mode, column 1, lines 25-40, column 6, lines 20-30). Stedman et al.

Art Unit: 2612

fail to specifically disclose receiving a first frame corresponding to a view at a first time; receiving a second frame corresponding to a view at a second time; determining weighted average brightness for the first and second frame; and causing the computer system to exit the inactive mode if the weighted average brightness for the first frame differs from the weighted average brightness for the second frame by a predetermined amount.

However, Brown discloses a video camera surveillance system comprising receiving a first frame and a second frame, disclosed as frame recorder 4 (figure 1, column 4, lines 34-67); determining a property for first frame and for second frame, disclosed as circuitry for discriminating between signals (figure 1, column 3, lines 20-40; column 4, lines 34-67). Brown discloses combination of frame recorder 4 and change detector 7 as computer system which operates in active mode when the discrepancy count value exceeds the minimum, then an alarm signal is generated on signal line 19 to activate alarm 12 or video cassette recorder 11 (figures 1-2, column 5, line 20 through column 6, line 8); and computer system operates in active mode when the discrepancy count value below the minimum required to generate an alarm condition, the alarm condition is removed from signal line 19 (figures 1-2, column 6, lines 15-31). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system in Stedman et al. by the teaching of Brown in order to provide a system which can recognizes different mode by comparing the property of two frames. Stedman et al. and Brown fails to specifically disclose determining a weighted average brightness for the first frame and second frame; and the first frame differs from the weighted average

Art Unit: 2612

brightness for the second frame by a predetermined amount. However, Ng teaches the pixel value of a frame indicates the luminance level or brightness level (column 6, lines 12-17, column 7, lines 10-28); and a motion detection signal is generated if the difference between the current frame and the reference frame exceeds a threshold (see abstract, the first frame differs from the weighted average brightness for the second frame by a predetermined amount). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system in Stedman et al. by the teaching of Brown and Ng in order to provide a system capable of immediately identifying changes in an image represented by a video signal (column 1, lines 49-51).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2612

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Luong Nguyen** whose telephone number is **(703) 308-9297**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reached on **(703) 305-4929**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is **(703) 306-0377**.

LN LN
10/5/2001


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600